

# Uneventful Until



By Lt. Mark Katocs

**I**t was 2330 on a dark, cloud-covered night, and we were en route to Corpus Christi International for a few touch-and-goes. We had departed an outlying field after doing a practice-precautionary-emergency landing (PPEL) and were at cruising altitude and airspeed.

A loud bang immediately was followed by a noticeable left wing drop, nose-down pitch, and a very profound aircraft vibration. I took the controls, kept the T-34 under control, and instinctively reduced power. I then started my setup for a PEL to San Patricio County, a non-controlled airfield with a 4,000-by-55-foot runway. My immediate thought—following denial—was I had a serious propeller malfunction.

I then heard the student say, “There is something on the windscreen.”

My reaction was to tell the student to make sure his parachute was on tight and to be ready to bail out if I gave the command. We then investigated the oil gauges, because oil is the controlling fluid for the propeller. As I checked all the engine-instrument gauges, none were fluctuating, and all indications were normal—minus the major vibration and degraded handling characteristics. As the airspeed hovered around 130 knots, I felt an obvious loss in controllability; I immediately accelerated to 150 knots.

The student then said he didn’t think the stuff on the windscreen was oil. He actually thought he saw feathers. I then realized I had a damaged aircraft from at least one birdstrike.

After declaring an emergency, I noticed the extent of the collateral damage. My angle-of-attack indexer and gauge indicated a full stall, which produced rudder shakers, and is a stall warning felt through the pedals of both cockpits. The indicated airspeed fluctuated and noticeably was different than the indicated ground speed displayed on the GPS. I already had ascertained the aircraft was controllable at 150 knots and nearly uncontrollable at 130 knots (by making an educated guess due to an unreliable pitot static). I decided to abort my PEL into San Patricio, and set up for a long straight-in approach to Corpus Christi International, which had a runway about twice as long and three times as wide.

At 7,500 feet by 150 feet, with full-time emergency services on site, it was a better choice for what I considered to be a bigger threat: controllability of the aircraft. I still was uncertain of the propeller’s condition and the seriousness of the vibration.

We climbed and set up for the approach into Corpus Christi. I wanted to maintain a dead-engine glide profile in case the birdstrike had damaged the propel-



Illustration by Lt. Bard Hubbard, VT-27.

ler and a possible engine failure followed. The ideal descent airspeed for a PEL is 100 knots. All T-34 pilots know that, at 100 knots, there is an optimal rate of descent. What we don’t know is what the descent rate will be in the event we must descend at 150 knots.

I decided to climb higher than I thought necessary and keep power on the aircraft to maintain 145 to 150 knots. After reaching what I thought was sufficient altitude, I reduced power (which ultimately lessened the vibration), lowered the gear, and made an uneventful, 150-knot (groundspeed) landing. The normal approach speed is 80 to 90 knots, with landing speeds of 65 to 75 knots.

The postflight revealed at least two impacts from what was later determined by the BASH experts to be Cattle Egrets, which have a three-foot wingspan and a body length of 19 to 23 inches. Both impact sights tore the aircraft skin and left significant holes on the leading edge of the left wing and the accessory air intake on the nose cowl. Other damage was to the propeller spinner and the underside of the nose cowl above the intakes, which sustained serious deformation.

Maintenance later determined a rib on the wing also had broken as a result of the strike. Because of the near collocation of the angle-of-attack (AoA) probe and Pitot tube on the left wing, a single bird knocked both of these gauges out of calibration and effectively rendered useless all airspeed and stall indications. Using the GPS groundspeed proved to be the most effective indicator of flying airspeed. 🦅

Lt. Katocs flies with VT-27.